

"STOP THIEF."—Our great moralist and joke-sketcher, George Cruikshank, has published a small pamphlet under this heading, the object of which is to lead housekeepers to hold their own against housebreakers. He will startle some of his readers by the exposition he gives of the means and appliances possessed by the burglar; but if he lead them, in consequence, to examine and reform the fastenings of the doors and windows, his end will be answered. He points out particularly the value of the thumb-screw and the wedge for securing doors and shutters. He recommends iron hoops nailed at the back of the panels, and suggests that young ladies, when they feel fatigued with their crochet work, should form some pretty pattern on the panels of the parlour shutters in nail-work. "With a sweet little dear of a basket of nails and a little love of a hammer, they might (taking care not to knock their dear little fingers) do their paper and mechanics good service,—for the housebreakers' sharp-cutting instruments dislike to meet a nail as much as anything."

INTERNATIONAL EXHIBITION PRIZES.—The Goldsmith's Company have decided to award 1,000*l.* for prizes to artists of the craft of the United Kingdom who can produce works of the highest design and merit, in gold and silver plate, for the Exhibition of 1851. The 1,000*l.* is to be divided into prizes varying from 300*l.* to 30*l.* and 10*l.* for works of a costly description, which probably will be eventually purchased by the company. There will be candidates, church plate, services, and smaller objects. The assistance of several noblemen and gentlemen of known taste in the fine arts is to be obtained to aid the court in judging and awarding the prizes.

CHEAP MOTIVE POWER.—Supposing there was a well or reservoir of water near a building where manufacturing power was required, and that the wind was employed for raising or pumping this water into another reservoir situated at the top of the building, or some other convenient elevation; the water thus raised might be made to fall through a pipe connected with a hydraulic engine at the base; and the power so obtained made to turn machinery of any kind—its intensity and equality of action being regulated according to necessity. The power of the wind to raise the water might be employed when available, either day or night; but the descent of the water only when needed. The water, of course, would be made to fall into the same reservoir from which it was raised, and thus be used over and over again.—*Mining Journal*.—[A suggestion none the worse for not being new.]

CITY IMPROVEMENTS.—It is intended, by a new Act to be applied for in the ensuing session of Parliament, amongst other purposes, to take power, with consent of the cathedral authorities, "to lay part of the ground area or space in the west front of St. Paul's Cathedral into the public street," and also to compel the consumption of smoke in all furnaces and fire-places used for manufacturing or trade purposes; and to remove more effectually other nuisances, encroachments, obstructions, projections, and annoyances. Various additional powers to the Sewers Commission with respect to sewers, slaughter-houses, &c. are also to be applied for.

RAILWAY JOTTINGS.—The railway explosion at Birmingham, noticed in our last, is now generally believed to have resulted from foul air, generated, as in coal-pits, in the recesses of piers of the arches, there being no air passages through many of them.—The London and North-Western Company are contemplating laying out a large plot of surplus land at Pinner (13½ miles from London) as a park, in which villas of a respectable character will be erected. They propose to give to the purchaser of each plot of ground the privilege of a free ticket terminable at the end of so many years, in order to afford parties from London facilities in the erection and habitation of substantial dwellings at the above place. The London and North-Western Company have at present less suburban travelling than most of the other metropolitan railways, and the course now proposed will assist in developing this important source of revenue.—"A very interesting and highly satisfactory experiment," says a contemporary, "was made on the sink-

ing of one of the cylinders of the new iron bridge erected across the Shannon by the (Irish) Midland Great Western Railway Company. These cylinders had been previously sunk by excavating and removing the interior, and forced down by their own weight and such additional weight as was found necessary; but in this instance a method which has been found successful by Messrs. Fox, Henderson, and Co., the contractors for the bridge, on many occasions, but which has not hitherto appeared applicable to the structure in question, was resorted to. [The well-known process of the late Dr. Pott, using atmospheric pressure, is here described.] The effect was as though many tons weight had suddenly fallen on it, for the whole rapidly descended between five and six feet into the ground until checked by the obstruction of a piece of timber. The sinking of this cylinder, ten feet in diameter, through hard yellow clay did not occupy more than a few seconds."

WANDLE WATER AND SEWERAGE COMPANY.—A preliminary announcement has been made of the formation of a company to supply Brixton, Clapham, Dulwich, Norwood, Sydenham, Wandsworth, Battersea, Putney, Lambeth, Walworth, Camberwell, Peckham, and other districts South of the Thames, with water; to provide public baths and wash-houses, and public conduits; to improve the sewerage and sanitary condition of Croydon, Carshalton, Morden, Mitcham, Merton, Wimbledon, Tooting, Streatham, Wandsworth, and other places through or near which the river Wandale flows.

ELECTRO-TELEGRAPHIC.—The Submarine Telegraph Company between Great Britain and Ireland, have advertised notice of application to Parliament in the ensuing session, for an Act of incorporation. The Submarine Telegraph Company between England and France have issued a similar notice. The European and American Printing Telegraph Company (Mr. Jacob Brett, of Hanover-square's patent) and the Magneto-Electric Telegraph Company have also announced the like intention to apply for incorporation, and for power to purchase and use patents.

A FLUE OF FLUES.—In course of operations in the Tamar Silver Lead Mines, on the borders of Devon and Cornwall, it became latterly essential either to erect a powerful steam-engine at the foot of a subterranean inclined plane, 2,000 feet in length, and running right below the river which flows over the mine, to a perpendicular depth of 800 feet below its bed; or, failing that, to shut up the mine and throw 1,500 people out of employment. It was, therefore, determined to adopt the former alternative, and a 20-horse steam-engine, one of the patent combined hydraulic engines from Walker's manufactory at Oliver's-yard, City-road, was accordingly fitted up at that depth. Flues were, of course, requisite, and it was found advisable to conduct these across to the furthest bank of the river, and in a series of horizontal levels united by perpendicular shafts, so that the flue in sections rises like a flight of stairs to the surface. This flue is no less than two miles long and upwards, probably the longest flue in the world. The result was quite successful, as will appear from the following statement:—"We drew through Spurgin's shaft in October month 2,988 kibbles of stuff with Walker's new underground engine: this machine is well constructed, and I have every reason to believe she will pump the shaft 150 fathoms deeper than it is at the present time. We have in these mines six steam-engines at work at the surface, but the draught of the underground engine exceeds the whole. The consumption of coals is 5 cwt. in the twenty-four hours."

THE IRON TRADE is still in *status quo*, and we need only refer for particulars to our last report on "the beginning of the end," the truth of which has been rather singularly confirmed within the last ten days by the fact that a Welsh paper in the trade interest, the *Cardiff Journal*, pays us the compliment of adopting it in the alump as its own view of the present state and prospects of the trade, while a Birmingham contemporary quotes it honourably from the Welsh, in corroboration of its despondent views. The latter is of opinion that "a united and determined effort on the part of the ironmasters as a body,

might go far to diminish the struggle, and to place the trade in a more healthy condition; but unfortunately an opposite disposition seems to prevail both here and elsewhere." That is precisely what we reprobated. But we fear that where some men go to the wall in order that others may live, it is no easy matter to act in concert, unless it be to draw lots for the casting of the poor Jonahs overboard. Exhibition castings, a mere morsel among so many hungry mouths, are absolutely almost all that the trade at large has at present to boast of in the shape of full employment. "The make, therefore, must be reduced, and if competition is about to decide to what extent this reduction will be carried in each locality, the result must be ruinous indeed."

IMPROVEMENT IN LIGHTHOUSE APPARATUS.—We understand that the Royal Scottish Society of Arts have awarded their highest prize, the "Keith Premium," value thirty guineas, to Mr. Thomas Stevenson, civil engineer, for his improvements in lighthouse apparatus. The name "holophotal" has been applied to his system.—*Edinburgh Register*.

ENGLISH COPPER IN METALLIC MASSES.—North Wales appears to be envious of the renown of North America for immense conglomerates of metallic copper, and determined to vie with them. At a new mine (the Graft-naut) near Harlech, N. W., a fine lode of solid copper, 3 feet wide, has been discovered at various points on the surface to the distance of several hundreds of yards, and latterly in the deep adit level in course of excavation, and at a depth of about 20 fathoms! The mine is in the hands of a small company.

DRAINAGE PLANS FOR BANGOR.—In reply to the invitation from the local Board of Health to submit tenders for the survey and mapping of the borough of Bangor, thirty tenders were received, varying from 50*l.* to 500*l.* At a meeting last week, after about an hour and a half's consultation as to the merits of the different candidates, the votes were taken by the chairman, when the unanimous decision was in favour of Mr. E. Johnson, civil engineer, whose tender was 150*l.*

RELIC OF THE CRUSADER.—Ascertaining that there was a stone fragment (which had been found some years ago in Francis-court, situated a few yards south of St. John's Gate) existing in a comparatively modern wall close by, I procured possession of it; and after having removed many coats of paint, I discovered that it was of Caen-stone, and had originally formed part of a Norman building: deeply-cut zig-zag mouldings are upon the fragment, having foliage and scallop shells alternately placed and boldly sculptured. Norman remains are often brought to light, and their usual characteristics well known; but the interest attached to the present relic consists in its being a part of the Priory founded in 1100; and this supposition may be inferred from the following: first, that previously to 1381, when St. John's Priory was destroyed by Wat Tyler, its buildings extended southward beyond the present gate; and, secondly, that scallop shells were assumed during the crusades, or after the return of the crusaders, in commemoration of these expeditions.

W. P. GRIFFITH.

TENDERS

For St. James's Baths, London; Mr. P. P. Baly, engineer. Quantities taken out by Mr. Balam and Mr. Wright. As delivered June 14, 1850:—

Jefferys	28,870
Peel	8,700
Walker and Soper	8,400
Pollock and McLennan	8,400
Higgs	8,470
Piper	8,237
Wisland and Holland	8,194
Hayward and Nixon	8,000
Curtis	7,904
Cooper, E. W.	7,923
Sanders and Woolcott	7,893
Myers	7,867
Barton, T.	7,820
Trego (accepted)	7,267

As delivered November 20, 1850, in consequence of a further application from the Commissioners to have fresh tenders for the same work, the previously accepted tender being dispensed with:—

Pilbeam	28,580
Seal and Jackson	8,081
Higgs	7,906
Sanders and Woolcott	7,893
Barton	7,889
Pollock and McLennan	7,880
Myers	7,747
Cooper, E. W.	7,698

* Bradbury and Evans, Beccles-street.